

SEQUENCE LISTING

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Watkins, Maren
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<120> Linear Gamma-Carboxyglutamate Rich Conotoxins

<130> 2314-224-II

<150> US 60/273,639
<151> 2001-03-07

<160> 196

<170> PatentIn version 3.0

<210> 1
<211> 24
<212> PRT
<213> Conus ammiralis

<220>

<221> PEPTIDE
<222> (1)..(24)
<223> Xaa at residue 1 is Gln or pygro-Glu; Xaa at residues 7, 8 and 9 is Glu or gamma-carboxy-Glu; Xaa at residues 13 and 16 is Lys, no r-Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N,N-trimethyl-Lys

<400> 1
Xaa Gly Gln Asp Asp Ser Xaa Xaa Xaa Asp Ser Gln Xaa Val Met Xaa
1 5 10 15

His Gly Gln Arg Arg Glu Arg Arg
20

<210> 2
<211> 17
<212> PRT
<213> Conus betulinus

<220>

<221> PEPTIDE
<222> (1)..(17)
<223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; Xaa at residue 17 is Pro or hydroxy-Pro

<400> 2
Gly Gly Xaa Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Leu Thr
1 5 10 15

Xaa

<210> 3
<211> 17

<212> PRT
<213> Conus betulinus

<220>
<221> PEPTIDE
<222> (1)..(17)
<223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; X
aa at residue 17 is Pro or hydroxy-Pro

<400> 3
Gly Gly Xaa Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Ile Thr
1 5 10 15

Xaa

<210> 4
<211> 17
<212> PRT
<213> Conus betulinus

<220>
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<222> (1)..(17)
<223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; X
aa at residue 17 is Pro or hydroxy-Pro

<400> 4
Asp Gly Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu Asn Xaa Leu Thr
1 5 10 15

Xaa

<210> 5
<211> 18
<212> PRT
<213> Conus betulinus

<220>
<221> PEPTIDE
<222> (1)..(18)
<223> Xaa at residues 3, 7, 10, 14, 16 and 17 is Glu or gamma-carboxy-G
lu

<400> 5
Gly Tyr Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Arg Xaa Leu Xaa
1 5 10 15

Xaa Ala

<210> 6
<211> 17
<212> PRT
<213> Conus betulinus

<220>
<221> PEPTIDE
<222> (1)..(17)
<223> Xaa at residues 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; Xaa
at residue 17 is Pro or hydroxy-Pro

<400> 6
 Gly Gly Gly Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Ile Thr
 1 5 10 15

Xaa

<210> 7
 <211> 18
 <212> PRT
 <213> Conus bullatus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa at residue 2 is Pro or hydroxy-Pro; Xaa at residues 3, 7, 10,
 14, 16 and 17 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is T
 yr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho
 -Tyr or nitro-Tyr

<400> 7
 Asn Xaa Xaa Thr Xaa Ile Xaa Ile Val Xaa Ile Ser Arg Xaa Leu Xaa
 1 5 10 15

Xaa Ile

<210> 8
 <211> 20
 <212> PRT
 <213> Conus bullatus

<220>
 <221> PEPTIDE
 <222> (1)..(20)
 <223> Xaa at residue 2 is Pro or hydroxy-Pro; Xaa at residues 3, 6, 9,
 12, 16, 18 and 19 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is
 Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr
 or nitro-Tyr

<400> 8
 Asn Xaa Xaa Thr Xaa Xaa Asn Leu Xaa Leu Val Xaa Ile Ser Arg Xaa
 1 5 10 15

Leu Xaa Xaa Ile
 20

<210> 9
 <211> 19
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Glu

<400> 9
 Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Leu
 1 5 10 15

Xaa Arg Asn

<210> 10
 <211> 19
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Glu

<400> 10
 Gly Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Leu
 1 5 10 15

Xaa Arg Asp

<210> 11
 <211> 19
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Glu

<400> 11
 Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Pro
 1 5 10 15

Xaa Arg Asn

<210> 12
 <211> 17
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa at residues 2, 3, 7, 10 and 14 is Glu or gamma-carboxy-Glu

<400> 12
 Ile Xaa Xaa Gly Leu Ile Xaa Asp Leu Xaa Thr Ala Arg Xaa Arg Asp
 1 5 10 15

Ser

<210> 13
 <211> 17
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE

<222> (1)..(17)
 <223> Xaa at residues 2, 3, 7, 10 and 14 is Glu or gamma-carboxy-Glu

<400> 13
 Ile Xaa Xaa Gly Leu Ile Xaa Asp Leu Xaa Ala Ala Arg Xaa Arg Asp
 1 5 10 15

Ser

<210> 14
 <211> 29
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(29)
 <223> Xaa at residues 2, 4, 10 and 16 is Glu or gamma-carboxy-Glu; Xaa at residues 3, 9, 25 and 28 is Pro or hydroxy-Pro; Xaa at residue 26 is Trp (D or L) or halo-Trp (D or L)

<220>
 <221> PEPTIDE
 <222> (1)..(29)
 <223> Xaa at residue 29 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N,N-trimethyl-Lys

<400> 14
 Gly Xaa Xaa Xaa Val Gly Ser Ile Xaa Xaa Ala Val Arg Gln Gln Xaa
 1 5 10 15

Cys Ile Arg Asn Asn Asn Asn Arg Xaa Xaa Cys Xaa Xaa
 20 25

<210> 15
 <211> 17
 <212> PRT
 <213> Conus distans

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa at residues 5, 6, 8 and 12 is Glu or gamma-carboxy-Glu

<400> 15
 Thr Ile Thr Ala Xaa Xaa Ala Xaa Arg Thr Ser Xaa Arg Met Ser Ser
 1 5 10 15

Met

<210> 16
 <211> 19
 <212> PRT
 <213> Conus distans

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 2, 7, 8, 10 and 14 is Glu or gamma-carboxy-Glu; Xaa at residues 4 and 6 is Pr

o or hydroxy-Pro

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<400> 16
Xaa Xaa Thr Xaa Thr Xaa Xaa Xaa Val Xaa Arg His Thr Xaa Arg Leu
1           5           10           15
Lys Ser Met

<210> 17
<211> 15
<212> PRT
<213> Conus episcopatus

<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 7, 11 and 13 is Glu or gamma-carboxy-Glu; Xaa at
      residue 14 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N
      ,N-trimethyl-Lys

<400> 17
Gly Gly Lys Asp Ile Val Xaa Thr Ile Thr Xaa Leu Xaa Xaa Ile
1           5           10           15

<210> 18
<211> 19
<212> PRT
<213> Conus figulinus

<220>
<221> PEPTIDE
<222> (1)..(19)
<223> Xaa at residues 2, 3, 4, 7, 11 and 15 is Glu or gamma-carboxy-Glu

<400> 18
Gly Xaa Xaa Xaa Val Ala Xaa Met Ala Ala Xaa Ile Ala Arg Xaa Asn
1           5           10           15

Gln Ala Asn

<210> 19
<211> 18
<212> PRT
<213> Conus figulinus

<220>
<221> PEPTIDE
<222> (1)..(18)
<223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-
      sulpho-Tyr, O-phospho-Tyr or nitro-Tyr Xaa at residues 3, 7, 10,
      14 and 17 is Glu or gamma-carboxy-Glu

<220>
<221> PEPTIDE
<222> (1)..(18)
<223> Xaa at residue 16 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys
      or N,N,N-trimethyl-Lys

<400> 19
Ser Xaa Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Xaa

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1

5

10

15

Xaa Arg

<210> 20

<211> 34

<212> PRT

<213> Conus figulinus

<220>

<221> PEPTIDE

<222> (1)..(34)

<223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr Xaa at residues 3, 7, 10, 14 and 17 is Glu or gamma-carboxy-Glu; Xaa at residue 28 is Pro or hydroxy-Pro

<220>

<221> PEPTIDE

<222> (1)..(34)

<223> Xaa at residues 16, 20 and 21 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N,N-trimethyl-Lys

<400> 20

Ser Xaa Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Xaa
1 5 10 15Xaa Arg Gly Xaa Xaa Ile Ile Met Leu Gly Val Xaa Arg Asp Thr Arg
20 25 30

Gln Phe

<210> 21

<211> 17

<212> PRT

<213> Conus figulinus

<220>

<221> PEPTIDE

<222> (1)..(17)

<223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residues 3, 7, 10, 14, 16 and 17 is Glu or gamma-carboxy-Glu

<400> 21

Xaa Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Arg Xaa Leu Xaa Xaa
1 5 10 15

Ile

<210> 22

<211> 19

<212> PRT

<213> Conus figulinus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa at residues 5, 6, 9, 12 and 16 is Glu or gamma-carboxy-Glu

<400> 22
 Gly Asn Thr Ala Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu His Xaa
 1 5 10 15

Leu Ser Leu

<210> 23
 <211> 23
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(23)
 <223> Xaa at residues 8, 12, 15, 19 and 22 is Glu or gamma-carboxy-Glu

<400> 23
 Gly Ser Ile Ser Met Gly Phe Xaa His Arg Arg Xaa Ile Ala Xaa Leu
 1 5 10 15

Val Arg Xaa Leu Ala Xaa Ile
 20

<210> 24
 <211> 19
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 2, 3, 4, 7, 11 and 15 is Glu or gamma-carboxy-Glu

<400> 24
 Gly Xaa Xaa Xaa Val Ala Xaa Met Ala Ala Xaa Ile Ala Arg Xaa Asn
 1 5 10 15

Ala Ala Asn

<210> 25
 <211> 18
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa at residue 2 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys
 or N,N,N-trimethyl-Lys; Xaa at residues 3, 4, 7, 10, 14, 16 and 1
 7 is Glu or gamma-carboxy-Glu

<400> 25
 Gly Xaa Xaa Xaa Asp Arg Xaa Ile Val Xaa Thr Val Arg Xaa Leu Xaa
 1 5 10 15

Xaa Ile

<210> 26
 <211> 19

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<212> PRT
<213> Conus lynceus

<220>
<221> PEPTIDE
<222> (1)..(19)
<223> Xaa at residues 2, 3, 4, 7, 11, 15 and 16 is Glu or gamma-carboxy
      -Glu; Xaa at residue 19 is Lys, nor-Lys, N-methyl-Lys, N,N-dimeth
      yl-Lys or N,N,N-trimethyl-Lys

<400> 26
Gly Xaa Xaa Xaa Val Ala Xaa Met Ala Ala Xaa Leu Thr Arg Xaa Xaa
1           5           10          15

Ala Val Xaa 3

<210> 27
<211> 24
<212> PRT
<213> Conus purpurascens

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Gl
      u; Xaa at residues 7 and 19 is Lys, nor-Lys, N-methyl-Lys, N,N-di
      methyl-Lys or N,N,N-trimethyl-Lys

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-
      sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 27
Gly Xaa Xaa Xaa His Ser Xaa Xaa Gln Xaa Cys Leu Arg Xaa Val Arg
1           5           10          15
Val Asn Xaa Val Gln Gln Xaa Cys
20

<210> 28
<211> 24
<212> PRT
<213> Conus purpurascens

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Gl
      u; Xaa at residues 7 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-
      Lys or N,N,N-trimethyl-Lys

<220>
<221> PEPTIDE
<222> (1)..(24)
<223> Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-
      sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 28
Gly Xaa Xaa Xaa His Ser Xaa Xaa Gln Xaa Cys Leu Arg Xaa Val Arg

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1

5

10

15

Val Asn Asn Val Gln Gln Xaa Cys
 20

<210> 29
 <211> 24
 <212> PRT
 <213> Conus purpurascens
 <220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Glu; Xaa at residues 7 and 19 is Lys, nor-Lys, N-methyl-Lys, N,N-di-methyl-Lys or N,N,N-trimethyl-Lys

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 29
 Gly Xaa Xaa Xaa His Ser Xaa Xaa Gln Xaa Cys Leu Arg Xaa Ile Arg
 1 5 10 15

Val Asn Xaa Val Gln Gln Xaa Cys
 20

<210> 30
 <211> 24
 <212> PRT
 <213> Conus purpurascens
 <220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residues 2, 4, 10, 14 and 23 is Glu or gamma-carboxy-Glu; Xaa at residues 19 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or N,N,N-trimethyl-Lys

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residue 6 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 30
 Gly Xaa Ala Xaa His Xaa Ala Phe Gln Xaa Cys Leu Arg Xaa Ile Asn
 1 5 10 15

Val Asn Xaa Val Gln Gln Xaa Cys
 20

<210> 31
 <211> 15
 <212> PRT
 <213> Conus purpurascens
 <220>

<221> PEPTIDE
 <222> (1)..(15)
 <223> Xaa at residues 3, 4, 7, 10, 13 and 14 is Glu or gamma-carboxy-Glu
 u

<400> 31
 Gly Leu Xaa Xaa Asp Ile Xaa Phe Ile Xaa Thr Ile Xaa Xaa Ile
 1 5 10 15

<210> 32
 <211> 15
 <212> PRT
 <213> Conus stercusmuscarum

<220>
 <221> PEPTIDE
 <222> (1)..(15)
 <223> Xaa at residues 3, 7, 13 and 14 is Glu or gamma-carboxy-Glu; Xaa
 at residue 11 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or
 N,N,N-trimethyl-Lys

<400> 32
 Ile Thr Xaa Thr Asp Ile Xaa Leu Val Met Xaa Leu Xaa Xaa Ile
 1 5 10 15

<210> 33
 <211> 20
 <212> PRT
 <213> Conus aurisiacus

<220>
 <221> PEPTIDE
 <222> (1)..(20)
 <223> Xaa at residues 2, 4, 11 and 15 is Glu or gamma-carboxy-Glu; Xaa
 at residue 20 is Lys, nor-Lys, N-methyl-Lys, N,N-dimethyl-Lys or
 N,N,N-trimethyl-Lys

<400> 33
 Gly Xaa Asp Xaa Val Ser Gln Met Ser Xaa Xaa Ile Leu Arg Xaa Leu
 1 5 10 15

Glu Leu Gln Xaa
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<210> 34
 <211> 31
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer

<400> 34
 caggatcctg tatctgctgg tgccctgg g

<210> 35
 <211> 23
 <212> DNA
 <213> Artificial

<220>
 <223> oligonucleotide primer

 <400> 35
 aagctcgagt aacaacgcag agt 23

 <210> 36
 <211> 432
 <212> DNA
 <213> Conus catus

 <400> 36
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 acagcgctga gacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 agtggcaagg acaggttgac tcaagatgaag aggattctca aaaagcaagg aaacacggct 240
 aaaagcgacg aagagctact acgagaggat gtagagactg ttttagaact cgaaaggaat 300
 gaaaaaaagat aatcaagctg agtgttccac gtgacactcg tcagttctaa agtccccaga 360
 taaatcggttc cctattttgc cacattctt cttctcttt tcatttaatt ccccaaatct 420
 ttcatgttta tt 432

 <210> 37
 <211> 102
 <212> PRT
 <213> Conus catus

 <400> 37
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

 His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

 Glu Arg Arg Ser Gly Asp Ala Thr Ala Leu Arg Pro Glu Pro Val Leu
 35 40 45

 Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Ser Gly Lys Asp Arg
 50 55 60

 Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Lys
 65 70 75 80

 Ser Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Leu Glu Leu
 85 90 95

 Glu Arg Asn Gly Lys Arg
 100

 <210> 38
 <211> 19
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Glu
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<400> 38
 Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Val Leu Xaa Leu
 1 5 10 15

Xaa Arg Asn

<210> 39
 <211> 432
 <212> DNA
 <213> Conus catus

<400> 39
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 ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcccgttc gggtgacgccc 120
 acagcgctga gacctgagcc tgcctcctg cagaatccg ctgcccgcag caccgacgac 180
 agtggcaagg acaggttgac tcagatgaag aggattctca aaaagcaagg aaacacggct 240
 aaaggcgacg aagagctact acgagaggat gtagagactg ttttagaaatcg cggaaaggat 300
 gaaaaaaagat aatcaagctg agtgttccac gtggcactcg tcagttctaa agtccccaga 360
 taaatcggttc cctattttgc cacattttt ctttctttt tcatttaatt ccccaaattct 420
 ttcatgttta tt 432

<210> 40
 <211> 102
 <212> PRT
 <213> Conus catus

<400> 40
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Gly Asp Ala Thr Ala Leu Arg Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Ser Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Lys
 65 70 75 80

Gly Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Leu Glu Leu
 85 90 95

Glu Arg Asp Gly Lys Arg
 100

<210> 41
 <211> 19
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Gl

u

<400> 41
 Gly Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Leu
 1 5 10 15

Xaa Arg Asp

<210> 42
 <211> 432
 <212> DNA
 <213> Conus catus

<400> 42
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 ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcccgttc gggtgacgccc 120
 acagcgctga gacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 agtggcaagg acaggttgc acagatgaag aggattctca aaaagcaagg aaacacggct 240
 aaaagcgacg aagagctact acgagaggat gtagagactg ttttagaacc cgaaaggaat 300
 ggaaaaagat aatcaagctg agtgttccac gtgacactcg tcagttctaa agtccccaga 360
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 ttcatgttta tt 432

<210> 43
 <211> 102
 <212> PRT
 <213> Conus catus

<400> 43
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Ala Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Gly Asp Ala Thr Ala Leu Arg Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Ser Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Lys
 65 70 75 80

Ser Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Val Leu Glu Pro
 85 90 95

Glu Arg Asn Gly Lys Arg
 100

<210> 44

<211> 19

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa at residues 3, 4, 8, 11, 15 and 17 is Glu or gamma-carboxy-Gl
 u; Xaa at residue 16 is Pro or hydroxy-Pro

<400> 44

Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Val Leu Xaa Xaa
 1 5 10 15

Xaa Arg Asn

<210> 45

<211> 427

<212> DNA

<213> Conus catus

<400> 45

gcgatgcaac tgtacacgta tctgtatctg ctgggtgtccc tggtgacacctt ccacctaattc 60

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acagcgctgg aagctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacaac 180

aatggcaagg acaggtcgac tcagatgagg aggattctca aaaagcaagg aaacacggct 240

agaatcgagg aaggtctgat agaggatctg gagaccgcta gagaacgcga cagtggaaaa 300

agataatcaa gctgagtgtt ccacgtgaca ctcatcagtt ctaaagtccc cagataaaatc 360

gttccctatt tttgccacat tctttcttcc tctttcggtt taattccccaa aatctttcat 420

gtttatt 427

<210> 46

<211> 100

<212> PRT

<213> Conus catus

<400> 46

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Ser Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Glu Ala Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asn Asn Gly Lys Asp Arg
 50 55 60

Ser Thr Gln Met Arg Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Arg
 65 70 75 80

Ile Glu Glu Gly Leu Ile Glu Asp Leu Glu Thr Ala Arg Glu Arg Asp
 85 90 95

Ser Gly Lys Arg
 100

<210> 47

<211> 17

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(17)

<223> Xaa at residues 2, 3, 7, 10 and 14 is Glu or gamma-carboxy-Glu

<400> 47

Ile Xaa Xaa Gly Leu Ile Xaa Asp Leu Xaa Thr Ala Arg Xaa Arg Asp
 1 5 10 15

Ser

<210> 48

<211> 427

<212> DNA

<213> Conus catus

<400> 48

gcgatgcaac tgtacacgta tctgtatctg ctgggtgtccc tggtgacctt ccacctaattc 60

ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcccgttt ggctgacgccc 120

acagcgctgg aagctgagcc tgtcctcctg cagaaatccg ctgcccgcag caccgacaac 180

aatggcaagg acaggtcgac tcaaatgagg aggattctca aaaagcaagg aaacacggct 240

agaatcgagg aaggctctgat agaggatctg gaggctgcta gagaacgcga cagtggaaaa 300

agataatcaa gctgagtggtt ccacgtgaca ctcatcagtt ctaaagtccc cagataaattc 360

gttccctatt tttgccacat tctttcttcc tcttttcgtt taattccccca aatctttcat 420

gtttatt 427

<210> 49

<211> 100

<212> PRT

<213> Conus catus

<400> 49

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Ser Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Glu Ala Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asn Asn Gly Lys Asp Arg
 50 55 60

Ser Thr Gln Met Arg Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Arg
 65 70 75 80

Ile Glu Glu Gly Leu Ile Glu Asp Leu Glu Ala Ala Arg Glu Arg Asp
lain 85 90 95

Ser Gly Lys Arg
 100

<210> 50

<211> 17

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(17)

<223> Xaa at residues 2, 3, 7, 10 and 14 is Glu or gamma-carboxy-Glu

<400> 50

Ile Xaa Xaa Gly Leu Ile Xaa Asp Leu Xaa Ala Ala Arg Xaa Arg Asp
 1 5 10 15

Ser

<210> 51

<211> 433

<212> DNA

<213> Conus catus

<400> 51

gcgatgcaac tgtacacgta tctgtatctg ctgggtcccc tggtgacctt ccacctaatc 60

ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcccgttc ggctgacgccc 120

acagcgctga aacctgagcc tgtcctcctg cagaaatccg ctgcccgcag caccgacgac 180

aatggcaaag acaggttgac tcacatgaag aggattctca aaaaacgagc aaacaaagcc 240

agaggcgaac cagaagttgg aagcataccg gaggcagtaa gacaacaaga atgtataaga 300

aataataata atcgacacctg gtgtcccaag tgacactcgt cagttctaaa gtctccagat 360

agatcggttcc ctattttgc cacactcttt ctttctcttt tcatttaagt tccccaaatc 420

tttcatgttt att 433

<210> 52

<211> 107

<212> PRT

<213> Conus catus

<400> 52
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr His Met Lys Arg Ile Leu Lys Lys Arg Ala Asn Lys Arg Glu
 65 70 75 80

Pro Glu Val Gly Ser Ile Pro Glu Ala Val Arg Gln Gln Glu Cys Ile
 85 90 95

Arg Asn Asn Asn Asn Arg Pro Trp Cys Pro Lys
 100 105

<210> 53

<211> 29

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(29)

<223> Xaa at residues 2, 4, 10 and 16 is Glu or gamma-carboxy-Glu; Xaa
 at residues 3, 9, 25 and 28 is Pro or hydroxy-Pro; Xaa at residue
 26 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O
 -phospho-Tyr or nitro-Tyr

<400> 53

Gly Xaa Xaa Xaa Val Gly Ser Ile Xaa Xaa Ala Val Arg Gln Gln Xaa
 1 5 10 15

Cys Ile Arg Asn Asn Asn Asn Arg Xaa Xaa Cys Xaa Lys
 20 25

<210> 54

<211> 430

<212> DNA

<213> Conus bullatus

<400> 54

gcgatgcaac tgtacacgta tctgtatctg ctgggtgcctt tggtgacctt ccacctaattc 60

ctgggcacgg gcacactaga tcatggaggc gcactgactg aacgccgttc ggctgacgccc 120

acagcactga aacctgagcc tgtcctcctg cagaaaaccg ctgcccgcag caccgacgac 180

aatggcaaga agaggctgac tcagaggaag aggattctca aaaagcgagg aaacacggct 240

agaaaccccg aaacttatat agagattgtg gagatttcta gggactcga agagattgga 300

aaaagataat caagctgggt gttccacgtg acactcgtca gttctgaagt cccgaggtag 360

atcgttccct attttgcca cactcttct ttctctttc atttaattcc ccaaatctt 420
 catgtttatt 430
 <210> 55
 <211> 101
 <212> PRT
 <213> Conus bullatus
 <400> 55
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Val Pro Leu Val Thr Phe
 1 5 10 15
 His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30
 Glu Arg Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45
 Leu Gln Lys Thr Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Lys Arg
 50 55 60
 Leu Thr Gln Arg Lys Arg Ile Leu Lys Lys Arg Gly Asn Thr Ala Arg
 65 70 75 80
 Asn Pro Glu Thr Tyr Ile Glu Ile Val Glu Ile Ser Arg Glu Leu Glu
 85 90 95
 Glu Ile Gly Lys Arg
 100
 <210> 56
 <211> 18
 <212> PRT
 <213> Conus bullatus
 <220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa at residue 1 is Pro or hydroxy-Pro; Xaa at residues 3, 5, 7,
 10, 14, 16 and 17 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is
 Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phos-
 pho-Tyr or nitro-Tyr
 <400> 56
 Asn Xaa Xaa Thr Xaa Ile Xaa Ile Val Xaa Ile Ser Arg Xaa Leu Xaa
 1 5 10 15
 Xaa Ile
 <210> 57
 <211> 435
 <212> DNA
 <213> Conus bullatus
 <400> 57
 gcgatgcaac tgtacacgta tctgtatttg ctggtgccct tggtgacctt ccacctaatc 60
 ctgggcacgg gcacactaga tcatggaggc gcactgactg aacgcccgttc ggctgacgccc 120

acagcgctga aacctgagcc tgtcctcctg cagaaaaccg ctgcccgcag caccgacgac 180
 aatggcaaga agaggctgac tcagaggaag aggattctca aaaagcgagg aaacacggct 240
 agaaaccccg aaacttatta taattttagag cttgtggaga tttctaggaa actcgaagaa 300
 attggaaaaa gataatcaag ctgggtgttc cacgtgacac tcgtcagttc ttaagtcccg 360
 aggtagatcg ttcccttattt ttgccacact ctttcttct ctttcattt aattccccaa 420
 actttcatgt ttattt 435

<210> 58
 <211> 103
 <212> PRT
 <213> *Conus bullatus*

<400> 58
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Thr Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Lys Arg
 50 55 60

Leu Thr Gln Arg Lys Arg Ile Leu Lys Lys Arg Gly Asn Thr Ala Arg
 65 70 75 80

Asn Pro Glu Thr Tyr Tyr Asn Leu Glu Leu Val Glu Ile Ser Arg Glu
 85 90 95

Leu Glu Glu Ile Gly Lys Arg
 100

<210> 59
 <211> 20
 <212> PRT
 <213> *Conus bullatus*

<220>
 <221> PEPTIDE
 <222> (1)..(20)
 <223> Xaa at residue 1 is Pro or hydroxy-Pro; Xaa at residues 3, 9, 12,
 16, 18 and 19 is Glu or gamma-carboxy-Glu; Xaa at residues 5 and
 6 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-
 phospho-Tyr or nitro-Tyr

<400> 59
 Asn Xaa Xaa Thr Xaa Xaa Asn Leu Xaa Leu Val Xaa Ile Ser Arg Xaa
 1 5 10 15

Leu Xaa Xaa Ile
 20

<210> 60
 <211> 425
 <212> DNA
 <213> Conus betulinus

<400> 60
 gcgatgcaac tgtacacgta tctgtatctg ctggtgcccc tggtgacctt ctacctaatc 60
 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aacgcgttt ggctgatgcc 120
 acagcgctga aacctgagcc tgtcctcctg cagaaatccg ccgccccgac caccgacgac 180
 aatggcaagg acaggttgac tcagatgatc aggattctca aaaagcgagg aaacatggcc 240
 agaggcggcg aagaagttag agagtctgca gagactcttc atgaactcac gccgtaggaa 300
 aaagaaaaag attaatcaag ctgggtgtcc cacgtgacac tcgtcagttc taaagtcccc 360
 agtttcctat ctttgccacg tttcttttc ttttcattca attcccaaa tctttcatgt 420
 ttatt 425

<210> 61
 <211> 95
 <212> PRT
 <213> Conus betulinus

<400> 61
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Ile Arg Ile Leu Lys Lys Arg Gly Asn Met Arg Gly
 65 70 75 80

Glu Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Leu Thr Pro
 85 90 95

<210> 62
 <211> 17
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; X
 aa at residue 17 is Pro or hydroxy-Pro

<400> 62
 Gly Gly Xaa Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Leu Thr
 1 5 10 15

Xaa

<210> 63
 <211> 425
 <212> DNA
 <213> Conus betulinus

<400> 63
 gcgatgcaac tgtatacgta tctgtatctg ctggtgccgc tggtgacctt ctacctaatc 60
 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aacgccgtt ggctgacgcc 120
 acagcgctga aacctgagcc tgcctcctg cagaaatccg ccgccccag cactgacgac 180
 aatggcaagg acaggttgac tcagatgatc aggattctca aaaagcgagg aaacatggcc 240
 agaggcggcg aagaagttag agagtctgca gagactcttc atgaaatcac gccgtaggaa 300
 aaagaaaaag attaatcaag ctgggttttc cacgtgacac tcgcccagttc taaagtcccc 360
 agtttcctat ctttgcagg tttctttctc ttttcattca attcccaaa tctttcatgt 420
 ttatt 425

<210> 64
 <211> 95
 <212> PRT
 <213> Conus betulinus

<400> 64
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Ile Arg Ile Leu Lys Lys Arg Gly Asn Met Arg Gly
 65 70 75 80

Glu Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Ile Thr Pro
 85 90 95

<210> 65
 <211> 17
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; X
 aa at residue 17 is Pro or hydroxy-Pro

<400> 65

Gly	Gly	Xaa	Xaa	Val	Arg	Xaa	Ser	Ala	Xaa	Thr	Leu	His	Xaa	Ile	Thr
1				5				10				15			

Xaa

<210> 66

<211> 425

<212> DNA

<213> Conus betulinus

<400> 66

gcgatcaac	tgtacacgta	tctgtatctg	ctggtgcccc	tggtgacctt	ctacctaata	60
-----------	------------	------------	------------	------------	------------	----

ctaggcacgg	gcacgctagg	tcatggaggc	gcactgactg	aacgccgtt	ggctgacgcc	120
------------	------------	------------	------------	-----------	------------	-----

acagcgctga	aacctaagcc	tatcctcctg	cagaaatccg	ccgcccccgag	cactgacgac	180
------------	------------	------------	------------	-------------	------------	-----

aatggcaagg	acaggttgac	tcatggaggc	gcactgactg	aacgccgtt	ggctgacgcc	240
------------	------------	------------	------------	-----------	------------	-----

agagacggcg	aagaagtcag	agaggctgca	gagactctta	atgaactcac	gccgttaggaa	300
------------	------------	------------	------------	------------	-------------	-----

aaagaaaaaa	atcatcaag	ctgggttttc	cacgtgacac	tcgtcagttc	taaagtaccc	360
------------	-----------	------------	------------	------------	------------	-----

agtttcctat	ctttgccacg	tttcttttc	tttccattca	attcccaaa	tctttcatgt	420
------------	------------	-----------	------------	-----------	------------	-----

ttatt						425
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<210> 67

<211> 97

<212> PRT

<213> Conus betulinus

<400> 67

Met	Gln	Leu	Tyr	Thr	Tyr	Leu	Tyr	Leu	Leu	Val	Pro	Leu	Val	Thr	Phe
1				5				10			15				

Tyr	Leu	Ile	Leu	Gly	Thr	Gly	Thr	Leu	Gly	His	Gly	Gly	Ala	Leu	Thr
			20				25			30					

Glu	Arg	Arg	Leu	Ala	Asp	Ala	Thr	Ala	Leu	Lys	Pro	Lys	Pro	Ile	Leu
			35				40			45					

Leu	Gln	Lys	Ser	Ala	Ala	Arg	Ser	Thr	Asp	Asp	Asn	Gly	Lys	Asp	Arg
			50			55			60						

Leu	Thr	Gln	Met	Ile	Arg	Ile	Leu	Lys	Arg	Gly	Asn	Met	Gly	Arg
65				70				75			80			

Asp	Gly	Glu	Glu	Val	Arg	Glu	Ala	Ala	Glu	Thr	Leu	Asn	Glu	Leu	Thr
				85					90			95			

Pro

<210> 68

<211> 17

<212> PRT

<213> Conus betulinus

<220>

<221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa at residues 3, 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; X
 aa at residue 17 is Pro or hydroxy-Pro

<400> 68
 Asp Gly Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu Asn Xaa Leu Thr
 1 5 10 15

Xaa

<210> 69
 <211> 437
 <212> DNA
 <213> Conus betulinus

<400> 69
 gcgatgcaac tgtacacgta tctgtatctg ctggtgcccc tggtgacctt ccacctaatc 60
 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aaagccgttc ggctgacgccc 120
 acagcactga aaccaggggcc tgtcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 aatggcaagg acaggttgac tcagatgaag aggactctca aaaagcgagg aaacacggcc 240
 agaggctacg aagatgatag agagattgca gagactgtta gagaactcga ggaagcagga 300
 aaatgaaaaaa gattaatcaa gctgggtgtt ccacgtgaca cttgtcagtt ctaaagtccc 360
 cagatagatc gttccctatt tttgccacat tcttttttc tcttttcatt taattcccc 420
 aatctttcat gtttatt 437

<210> 70
 <211> 98
 <212> PRT
 <213> Conus betulinus

<400> 70
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Ser Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Gly Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Lys Arg Thr Leu Lys Lys Arg Gly Asn Thr Arg Tyr
 65 70 75 80

Glu Asp Asp Arg Glu Ile Ala Glu Thr Val Arg Glu Leu Glu Ala
 85 90 95

Gly Lys

<210> 71

<211> 18
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residue 3, 7, 10, 14, 16 and 17 is Glu or gamma-carboxy-Glu

<400> 71
 Gly Xaa Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Val Arg Xaa Leu Xaa
 1 5 10 15

Xaa Ala

<210> 72
 <211> 425
 <212> DNA
 <213> Conus betulinus

<400> 72
 gcgatgcaac tgtacacgta tctgtatctg ctggtgccgc tggtgaccctt ctacctaattc 60
 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aacgcgcgttt ggctgacgccc 120
 acagcgctga aacctgagcc tgcctcctg cagaatccg ccgcgcgcgc cactgacgac 180
 aatggcaagg acagggttac tcagatgatc aggattctca aaaagcgagg aaacatggcc 240
 agaggcggcg gagaagttag agagtctgca gagactcttc atgaaatcac gccgttaggaa 300
 aaagaaaaag attaatcaag ctgggttttc cacgtgacac tcgtcagttc taaagtcccc 360
 agtttcctat ctttgcagg tttctttctc ttttcattca attcccaaa tctttcatgt 420
 ttatt 425

<210> 73
 <211> 95
 <212> PRT
 <213> Conus betulinus

<400> 73
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Ile Arg Ile Leu Lys Lys Arg Gly Asn Met Arg Gly
 65 70 75 80

Gly Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Ile Thr Pro

85

90

95

<210> 74

<211> 17

<212> PRT

<213> Conus betulinus

<220>

<221> PEPTIDE

<222> (1)..(17)

<223> Xaa at residues 4, 7, 10 and 14 is Glu or gamma-carboxy-Glu; Xaa at residue 17 is Pro or hydroxy-Pro

<400> 74

Gly Gly Gly Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Ile Thr
1 5 10 15

Xaa

<210> 75

<211> 434

<212> DNA

<213> Conus ammiralis

<400> 75

gcgatgcaac tgtacacgta tctgtgtctg ctggtgcccc tggtgacacctt ctacctaatt 60
ctaggcacgg gcacactagc tcatggaggc gcactgaccg aacgccgtt ggctcacgcc 120
agagtaatag aacctgatcc tgccccctg gagaactccg ctctccgcag catccgacga 180
caacgacaag gacaggatga ctcagaggaa gaggattctc aaaaagtgtat gaaacacggc 240
cagaggcgcg aaagaagata gaaataatgc ggaggctgtt agagaaagac tcgaagaaat 300
agaaaaaagg taatcaagct ggggtttca cgtgacactc atcagttcta aagtccccag 360
atagatcggtt ccctatTTTt gccatattct ttccTTTctt tttcatgtaa ttccccaaat 420
ctttcatgttt tatt 434

<210> 76

<211> 85

<212> PRT

<213> Conus ammiralis

<400> 76

Met Gln Leu Tyr Thr Tyr Leu Cys Leu Leu Val Pro Leu Val Thr Phe
1 5 10 15Tyr Leu Ile Leu Gly Thr Gly Thr Leu Ala His Gly Gly Ala Leu Thr
20 25 30Glu Arg Arg Leu Ala His Ala Arg Val Ile Glu Pro Asp Pro Ala Pro
35 40 45Leu Glu Asn Ser Ala Leu Arg Ser Ile Arg Arg Gln Arg Gln Gly Gln
50 55 60

Asp Asp Ser Glu Glu Asp Ser Gln Lys Val Met Lys His Gly Gln

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Arg Trp Lys Gly Ile Leu Lys Lys Arg Gly Asn Thr Arg Gly
 65 70 75 80

Lys Asp Ile Val Glu Thr Ile Thr Glu Leu Glu Lys Ile Gly Lys Arg
 85 90 95

<210> 80

<211> 15

<212> PRT

<213> Conus episcopatus

<220>

<221> PEPTIDE

<222> (1)..(15)

<223> Xaa at residues 7, 11 and 13 is Glu or gamma-carboxy-Glu

<400> 80

Gly Gly Lys Asp Ile Val Xaa Thr Ile Thr Xaa Leu Xaa Lys Ile
 1 5 10 15

<210> 81

<211> 433

<212> DNA

<213> Conus lynceus

<400> 81

gcgatgcaac tgtacacgta tctgtatctg ctgggtcccc tggtgacctt ccacctaattc 60

ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcgttc gactgatgcc 120

atagcactga aacctgagcc tgcctcctg cagaaatcct ctgcccgcag caccgacgat 180

aatggcaacg acaggttgac tcagatgaag aggatcctca aaaagcgagg aaacaaagcc 240

agaggcgaag aagaagttgc aaaaatggcg gcagagattg ccagagaaaa cgctgcaaat 300

gggaaatgat aatcaagttg ggtgttccac gtgacactcg tcagttctaa agtccccaga 360

tagatcgttc cctatttttg ccacattctt tctttctctt ttcatttaat tccccaaatc 420

tttcatgttt att 433

<210> 82

<211> 99

<212> PRT

<213> Conus lynceus

<400> 82

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Thr Asp Ala Ile Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ser Ala Arg Ser Thr Asp Asp Asn Gly Asn Asp Arg

50 55 60

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Lys Arg Glu
65 70 75 80

Glu Glu Val Ala Lys Met Ala Ala Glu Ile Ala Arg Glu Asn Ala Ala
85 90 95

Asn Gly Lys

<210> 83
<211> 19
<212> PRT
<213> Conus figulinus

<220>
<221> PEPTIDE
<222> (1)..(19)
<223> Xaa at residues 2, 3, 4, 11 and 15 is Glu or gamma-carboxy-Glu

<400> 83
Gly Xaa Xaa Xaa Val Ala Lys Met Ala Ala Xaa Ile Ala Arg Xaa Asn
1 5 10 15

Ala Ala Asn

<210> 84
<211> 430
<212> DNA
<213> Conus lynceus

<400> 84
gcgatgcaac tgtacacgta tctgtatctg ctgggtcccc tggtgatctt ctacctaattc
ctaggcacgg gcacgcctagg tcatggaggc acactgactg aacgccgttc ggctgatgcc 60
acagcactga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccggcgac 120
gatgccaagg agaggttgac tcagacgaag aggattcgca aaaagcgagc aaacacgacc 180
agaggcaaag aagaggatag agagatttgag gagactgtta gagaactcgaa agaaatagga 240
aaaagatgat caagctgggt gttccacgtg acactcgta gttccaaagt cccagatag 300
atcggtccct attttgcca cattcttct ttctttttc attaattcc ccaaattttt 360
catgtttatt 420
430

<210> 85
<211> 101
<212> PRT
<213> Conus lynceus

<400> 85
Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Ile Phe
1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Thr Leu Thr
20 25 30

Glu Arg Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Gly Asp Asp Ala Lys Glu Arg
 50 55 60

Leu Thr Gln Thr Lys Arg Ile Arg Lys Lys Arg Ala Asn Thr Thr Arg
 65 70 75 80

Gly Lys Glu Glu Asp Arg Glu Ile Val Glu Thr Val Arg Glu Leu Glu
 85 90 95

Glu Ile Gly Lys Arg
 100

<210> 86

<211> 18

<212> PRT

<213> Conus lynceus

<220>

<221> PEPTIDE

<222> (1)..(18)

<223> Xaa at residues 3, 4, 7, 10, 14, 16 and 17 is Glu or gamma-carboxy-Gl

<400> 86

Gly Lys Xaa Xaa Asp Arg Xaa Ile Val Xaa Thr Val Arg Xaa Leu Xaa
 1 5 10 15

Xaa Ile

<210> 87

<211> 433

<212> DNA

<213> Conus lynceus

<400> 87

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ctaggcacgg gcacactaga tcatggaggc gcactgactg aacgcgttc gactgacgccc 120

atagcactga aacctgagcc tgcctcctg cagaaatcct ctgcccgcag caccgacgac 180

aatggcaacg acaggttgat tcagatgaag aggattctca aaaagcggagg aaacaaagcc 240

agaggcgaag aggaagttgc aaaaatggcg gcagagctta ccagagaaga agctgtaaag 300

gggaaatgat aatcaagttg ggtgttccac gtgacactcg tcagttctaa agtccccaga 360

tagatcgttc cctatTTTG ccacattctt tctttctatt ttcatttaat tccccaaatc 420

tttcatgttt att 433

<210> 88

<211> 99

<212> PRT

<213> Conus lynceus

<400> 88

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe

1	5	10	15
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His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Thr Asp Ala Ile Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ser Ala Arg Ser Thr Asp Asp Asn Gly Asn Asp Arg
 50 55 60

Leu Ile Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Lys Arg Glu
 65 70 75 80

Glu Glu Val Ala Lys Met Ala Ala Glu Leu Thr Arg Glu Glu Ala Val
 85 90 95

Lys Gly Lys

<210> 89
 <211> 19
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residues 2, 3, 4, 11, 15 and 16 is Glu or gamma-carboxy-Gl

<400> 89
 Gly Xaa Xaa Xaa Val Ala Lys Met Ala Ala Xaa Leu Thr Arg Xaa Xaa
 1 5 10 15

Ala Val Lys

<210> 90
 <211> 433
 <212> DNA
 <213> Conus figulinus

<400> 90
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 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aacgcccgtt ggctgacgcc 120
 acagcgctga aacctgagcc tgcctcctg cagaaatccg ctgccccgac caccgacgac 180
 aatgacaagg acaggctgac ccagatgaag aggatttca aaaagcgagg aaacaaagcc 240
 agaggcgagg aagaagttgc agagatggcg gcagagattg caagagaaaa tcaagcaaac 300
 gggaaaagat aatcaaactg ggtgttccac gtgacactcg tcagttctaa agtccccaga 360
 taggtcggtc tctatgtttg ccacattctt tcttttctt ttcatttaat tccccaaatc 420
 tttcatgtttt att 433

<210> 91
 <211> 100

<212> PRT

<213> Conus figulinus

<400> 91

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe

1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
20 25 30Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
35 40 45Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Asp Lys Asp Arg
50 55 60Leu Thr Gln Met Lys Arg Ile Phe Lys Lys Arg Gly Asn Lys Arg Glu
65 70 75 80Glu Glu Val Ala Glu Met Ala Ala Glu Ile Ala Arg Glu Asn Gln Ala
85 90 95Asn Gly Lys Arg
100

<210> 92

<211> 19

<212> PRT

<213> Conus figulinus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa at residues 2, 3, 4, 7, 11 and 15 is Glu or gamma-carboxy-Glu

<400> 92

Gly Xaa Xaa Xaa Val Ala Xaa Met Ala Ala Xaa Ile Ala Arg Xaa Asn
1 5 10 15

Gln Ala Asn

<210> 93

<211> 431

<212> DNA

<213> Conus figulinus

<400> 93

gcgatgcaac tgtacacgta tctgtatctg ctgggtcccc tggtgacacctt ctacctaatc 60

ctaggacgg gcacactagc tcatggaggc gcacccactg aacgccgttt ggctgacacc 120

acagcactga aacccgagca tgtcctcctg cagatgtccg ctgccccag caccaacgat 180

aatggcaagg acaggttgac tcaagatgaag aggattctca aaaagcaagg aaacacagcc 240

agaagctacg aacaagctag agaagttcag gaggctgtta atgaactcaa ggaaagaggt 300

aaaaagataa tcatgctggg tggccacgt gacactcgac agttctaaag ccccccagata 360

gattgttccg tatttttacc acgttcttcc tttctttt catttaattc cccaaatctt 420

tcatgtttat t	431
<210> 94	
<211> 114	
<212> PRT	
<213> Conus figulinus	
<400> 94	
Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe	
1 5 10 15	
Tyr Leu Ile Leu Gly Thr Gly Thr Leu Ala His Gly Gly Ala Pro Thr	
20 25 30	
Glu Arg Arg Leu Ala Asp Thr Thr Ala Leu Lys Pro Glu His Val. Leu	
35 40 45	
Leu Gln Met Ser Ala Ala Arg Ser Thr Asn Asp Asn Gly Lys Asp Arg	
50 55 60	
Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Gln Gly Asn Thr Ala Arg	
65 70 75 80	
Ser Tyr Glu Gln Ala Arg Glu Val Gln Glu Ala Val Asn Glu Leu Lys	
85 90 95	
Glu Arg Gly Lys Lys Ile Ile Met Leu Gly Val Pro Arg Asp Thr Arg	
100 105 110	
Gln Phe	
<210> 95	
<211> 18	
<212> PRT	
<213> Conus figulinus	
<220>	
<221> PEPTIDE	
<222> (1)..(18)	
<223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residues 3, 7, 10, 14 and 17 is Glu or gamma-carboxy-Glu	
<400> 95	
Ser Xaa Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Lys	
1 5 10 15	
Xaa Arg	
<210> 96	
<211> 431	
<212> DNA	
<213> Conus figulinus	
<400> 96	
gcgatgcaac tgtacacgta tctgtatctg ctggtgcccc tggtgacctt ctacctaattc	60
ctagggacgg gcacactagc tcatggaggc gcacccgactg aacgccgttt ggctgacacc	120

acagcactga aaccggagca tgtcctcctg cagatgtccg ctgcccgcag caccaacgat 180
 aatggcaagg acaggttgac tcagatgaag aggattctca aaaagcaagg aaacacagcc 240
 agaagctacg aacaagctag agaagttcag gaggctgtta atgaactcaa ggaaagaggt 300
 aaaaagataa tcatgctggg ttttccacgt gacactcgac agttctaaag ccccccagata 360
 gattgttccg tatttttacc acgttcttcc tttctctttt catttaattc cccaaatctt 420
 tcatgtttat t 431
 <210> 97
 <211> 114
 <212> PRT
 <213> Conus figulinus

<400> 97
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15
 Tyr Leu Ile Leu Gly Thr Gly Thr Leu Ala His Gly Gly Ala Pro Thr
 20 25 30
 Glu Arg Arg Leu Ala Asp Thr Thr Ala Leu Lys Pro Glu His Val Leu
 35 40 45
 Leu Gln Met Ser Ala Ala Arg Ser Thr Asn Asp Asn Gly Lys Asp Arg
 50 55 60
 Leu Thr Gln Met Lys Arg Ile Leu Lys Gln Gly Asn Thr Ala Arg
 65 70 75 80
 Ser Tyr Glu Gln Ala Arg Glu Val Gln Glu Ala Val Asn Glu Leu Lys
 85 90 95
 Glu Arg Gly Lys Lys Ile Ile Met Leu Gly Val Pro Arg Asp Thr Arg
 100 105 110

Gln Phe

<210> 98
 <211> 34
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(34)
 <223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residues 3, 7, 10, 14 and 17 is Glu or gamma-carboxy-Glu; Xaa at residue 28 is Pro or hydroxy-Pro

<400> 98
 Ser Xaa Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Lys
 1 5 10 15
 Xaa Arg Gly Lys Lys Ile Ile Met Leu Gly Val Xaa Arg Asp Thr Arg
 20 25 30

Gln Phe

<210> 99
 <211> 429
 <212> DNA
 <213> Conus figulinus

<400> 99
 gcgatgcaac tgtacacgta tctgtatctg ctggtgccccc tggtgacgtt ccacctaattc 60
 ctaggcacgg gcacactagc tcatggaggc gcactggctg aacgcccgtt ggctgacgccc 120
 acagcgctga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 aatggcaagg acagggttgac tgagatgaag aggattctca aaaagcgagg aaacacggcc 240
 agagactacg aagatgatag agagattgca gagactgtta gagaactcga agaaataggt 300
 aaaagataat caagctgggt gttcaattga cactcatcag ttctaaagtc cccagataga 360
 tggcccta atttgccac gttctttctt tcttttca tttaattccc caaatcttc 420
 atgtttattt 429

<210> 100
 <211> 99
 <212> PRT
 <213> Conus figulinus

<400> 100
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Ala His Gly Gly Ala Glu Arg
 20 25 30

Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu Leu Gln
 35 40 45

Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg Leu Thr
 50 55 60

Glu Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Thr Ala Arg Asp Tyr
 65 70 75 80

Glu Asp Asp Arg Glu Ile Ala Glu Thr Val Arg Glu Leu Glu Glu Ile
 85 90 95

Gly Lys Arg

<210> 101
 <211> 18
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa at residue 2 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-

sulpho-Tyr, O-phospho-Tyr or nitro-Tyr; Xaa at residues 3, 7, 10, 14, 16 and 17 is Glu or gamma-carboxy-Glu

<400> 101
 Asp Xaa Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Arg Xaa Leu Xaa
 1 5 10 15

Xaa Ile

<210> 102
 <211> 419
 <212> DNA
 <213> Conus figulinus

<400> 102
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 ctaggcacgg gcacgctagg tcatggaggc gcactgactg aacgcccgtt ggctgacgccc 120
 acagcgctga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 aatggcaagg acaggttgac tcaagatgaag gggactgtca aaaagcgagg aaacacggcc 240
 gaagaagtta gagaggctgc agagactctt catgaactct cgctgttagga aaaagaaaaaa 300
 gattaatcaa gctgggtgtt ccacgtgaca ctgcgtcagtt ctaaagtccc cagttcccta 360
 tctttgccac gtttttctt tctctttca tccaaattccc caaatcttc atgtttatt 419

<210> 103
 <211> 94
 <212> PRT
 <213> Conus figulinus

<400> 103
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

Tyr Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Gln Met Lys Gly Thr Val Lys Lys Arg Gly Asn Thr Ala Glu
 65 70 75 80

Glu Val Arg Glu Ala Ala Glu Thr Leu His Glu Leu Ser Leu
 85 90

<210> 104
 <211> 19
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE

<222> (1)..(19)
 <223> Xaa at residues 5, 6, 9, 12 and 16 is Glu or gamma-carboxy-Glu

<400> 104
 Gly Asn Thr Ala Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu His Xaa
 1 5 10 15

Leu Ser Leu

<210> 105
 <211> 427
 <212> DNA
 <213> Conus figulinus

<400> 105
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 ctaggcacgg gcacactagg tcatggaggc gcactgactg aacgcccgtt ggctgacgccc 120
 acagcgctga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgtc 180
 aatggcaagg acaggttgac tgagatgaag aggattctca aaaagcgagg aagcatatcc 240
 atgggcttcg aacatagaag agagattgca gagttggta gagaactcgc tggaaataggt 300
 aaacgataat caagctgggt gttccactaa cactcgtagt ttctaaagtc cccagataga 360
 tcgttcccta tcttgccac atttttttc tctttcatt taattcccc aatctttcat 420
 gtttatt 427

<210> 106
 <211> 101
 <212> PRT
 <213> Conus figulinus

<400> 106
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Leu Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Val Asn Gly Lys Asp Arg
 50 55 60

Leu Thr Glu Met Lys Arg Ile Leu Lys Lys Arg Gly Ser Ile Ser Met
 65 70 75 80

Gly Phe Glu His Arg Arg Glu Ile Ala Glu Leu Val Arg Glu Leu Ala
 85 90 95

Glu Ile Gly Lys Arg
 100

<210> 107
 <211> 23

<212> PRT

<213> Conus figulinus

<220>

<221> PEPTIDE

<222> (1)..(23)

<223> Xaa at residues 8, 12, 15, 19 and 22 is Glu or gamma-carboxy-Glu

<400> 107

Gly Ser Ile Ser Met Gly Phe Xaa His Arg Arg Xaa Ile Ala Xaa Leu
1 5 10 15Val Arg Xaa Leu Ala Xaa Ile
20

<210> 108

<211> 427

<212> DNA

<213> Conus distans

<400> 108

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caaggcacgg gcacactagg ccatggaggc gcactgactg aaggccgttc ggctgacgccc 120

acagcgccga aacctgaacc tgcctcctg cagaatccg atgcccgcag cgccgacgac 180

aacggcaagg acaagttgac tcagatgaag aggactctga aaaagcaagg acacattgcc 240

agaaccataa ctgctgaaga ggcagagagg actagtaaa gaatgtcatc aatgggaaaa 300

agataatcaa gctgggtgtt ccacgtgaca ctcgtcagtt ctaaagtccc cagataaattc 360

gttccctgtt tttgccctgt tctttcttcc tctttcatt caattccccca aatctttcat 420

gtttatt 427

<210> 109

<211> 98

<212> PRT

<213> Conus distans

<400> 109

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Ala Phe
1 5 10 15His Leu Ile Gln Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
20 25 30Glu Gly Arg Ser Ala Asp Ala Thr Ala Pro Lys Pro Glu Pro Val Leu
35 40 45Leu Gln Lys Ser Asp Ala Arg Ser Ala Asp Asp Asn Gly Lys Asp Lys
50 55 60Leu Thr Gln Met Lys Arg Thr Leu Lys Lys Gln Gly His Ile Ala Arg
65 70 75 80Thr Ile Thr Ala Glu Glu Ala Glu Arg Thr Ser Met Ser Ser Met Gly
85 90 95

Lys Arg

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<210> 110
<211> 17
<212> PRT
<213> Conus distans

<220>
<221> PEPTIDE
<222> (1)..(17)
<223> Xaa at residues 5, 6, 8 and 12 is Glu or gamma-carboxy-Glu
```

<400> 110
Thr Ile Thr Ala Xaa Xaa Ala Xaa Arg Thr Ser Xaa Arg Met Ser Ser
1 5 10 15

Met

```
<210> 111
<211> 415
<212> DNA
<213> Conus distans

<400> 111
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caaggaacgg gcacgctagg ccatggaggc gcactgactg aaggccgttc ggctgacgccc
acagcggccga aacctgaacc tgtgctcggt cagaaatcggt atgcccgcag cgccgacgac 120
aaccgcaagg acaagttgac tcagatgaag aggattctga aaaagcaaga aaccccaact 180
cctgaagagg tagagcgcca taccgaaaga ctcaaaagca tggggaaaag ataatcaagc 240
tgggtgttcc acgtgacact cgtcagttct aaagtccccaa gatggatcgt tccctgtttt 300
tggcccggttc tttcggttctc ttttcattca attccccaaa tctttcatgt ttatt 360
<210> 112
<211> 96
<212> PRT
<213> Conus distans
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<400> 112
Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Ser Leu Val Ala Phe
1 5 10 15

His Leu Ile Gln Gly Thr Gly Thr Leu Gly His Gly Gly Ala Leu Thr
 20 25 30

Glu Gly Arg Ser Ala Asp Ala Thr Ala Pro Lys Pro Glu Pro Val Leu
35 40 45

Val Gln Lys Ser Asp Ala Arg Ser Ala Asp Asp Asn Arg Lys Asp Lys
50 55 60

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Gln Glu Thr Pro Thr Pro
65 70 75 80

Glu Glu Val Glu Arg His Thr Glu Arg Leu Lys Ser Met Gly Lys Arg

85

90

95

<210> 113
 <211> 19
 <212> PRT
 <213> Conus distans

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa at residue 1 is Gln or pyro-Glu; Xaa at residues 2, 4, 6, 7, 8, 10 and 14 is Glu or gamma-carboxy-Glu

<400> 113
 Xaa Xaa Thr Xaa Thr Xaa Xaa Xaa Val Xaa Arg His Thr Xaa Arg Leu
 1 5 10 15

Lys Ser Met

<210> 114
 <211> 439
 <212> DNA
 <213> Conus purpurascens

<400> 114
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 ctaggcacgg gaatgctagc tcatggagac acactgactg aacgcccgttc ggttgcacgccc 120
 acagcactga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 aatgacaagg acaggttgcac tcagatgaag aggattctca aaaagcgagg aaacaaagcc 240
 agaggcgaag aagaacattc caagtatcaa gagtgcttta gagaagtaag agtaaataag 300
 gtacaacaag aatgttaatc aagctgggtg ttccacgtga cactcgtagt ttctaaagtc 360
 cccagataga tcgttcccgaa ttttgccac attctttctt tctctttca tttaattcccc 420
 caaatcttca atgttttatt 439

<210> 115
 <211> 102
 <212> PRT
 <213> Conus purpurascens

<400> 115
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Met Leu Ala His Gly Asp Thr Leu Thr
 20 25 30

Glu Arg Arg Ser Val Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asn Asp Lys Asp Arg
 50 55 60

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Lys Arg Glu

65

70

75

80

Glu Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Val Arg Val Asn
 85 90 95

Lys Val Gln Gln Glu Cys
 100

<210> 116
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>

<221> PEPTIDE

<222> (1)..(24)

<223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Gl
 u; Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr,
 O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 116

Gly Xaa Xaa Xaa His Ser Lys Xaa Gln Xaa Cys Leu Arg Xaa Val Arg
 1 5 10 15

Val Asn Lys Val Gln Gln Xaa Cys
 20

<210> 117
 <211> 436
 <212> DNA
 <213> Conus purpurascens

<400> 117

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 acagcactga aacctgagcc tgtcctgcag gaatctgatg cccgcagcac cgacgcacaat 180
 gacaaggaca ggttactca gatgaagagg attctcaaaa agcgaggaaa caaagccaga 240
 ggcgaagaag aacattccaa gtatcaggag tgtcttagag aagtaagagt aaataacgta 300
 caacaagaat gttaatcaag ctgggtgttc cacgtgacac tcgtcagttc taaagtcccc 360
 agatagatcg ttccctattt ttgccacatt ctttctttct ctttcattt aattccccaa 420
 atctttcatg tttatt 436

<210> 118
 <211> 101
 <212> PRT
 <213> Conus purpurascens

<400> 118

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Ala His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Gly Ser Thr Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Gln Glu Ser Asp Ala Arg Ser Thr Asp Asp Asn Asp Lys Asp Arg Leu
 50 55 60

Thr Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Lys Arg Glu Glu
 65 70 75 80

Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Val Arg Val Asn Asn
 85 90 95

Val Gln Gln Glu Cys
 100

<210> 119

<211> 24

<212> PRT

<213> Conus purpurascens

<220>

<221> PEPTIDE

<222> (1)..(24)

<223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Glu; Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 119

Gly Xaa Xaa Xaa His Ser Lys Xaa Gln Xaa Cys Leu Arg Xaa Val Arg
 1 5 10 15

Val Asn Asn Val Gln Gln Xaa Cys
 20

<210> 120

<211> 439

<212> DNA

<213> Conus purpurascens

<400> 120

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acagcactga aacctgagcc tgcctcctg cagaaatctg atgcccgcag caccgacgac 180

aatgacaagg acaggttgc acagatgaag aggattctca aaaagcgagg aaacaaagcc 240

agaggcgaag aagaacattc caagtatcag gagtgcctt gagaataag agtaaataag 300

gtacaacaag aatgttaatc aagctgggtt ttccacgtga caccgcgtc 360

cccatataga tcgttcccta ttttgccac attctttctt tctctttca ttatattccc 420

caaataatc atgtttttt 439

<210> 121

<211> 102

<212> PRT

<213> Conus purpurascens

<400> 121
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Ser Thr Gly Thr Leu Ala His Gly Gly Thr Leu Thr
 20 25 30

Glu Arg Arg Ser Thr Asp Thr Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Asp Ala Arg Ser Thr Asp Asp Asn Asp Lys Asp Arg
 50 55 60.

Leu Thr Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Lys Arg Glu
 65 70 75 80

Glu Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Ile Arg Val Asn
 85 90 95

Lys Val Gln Gln Glu Cys
 100

<210> 122
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residues 2, 3, 4, 10, 14 and 23 is Glu or gamma-carboxy-Gl
 u; Xaa at residue 8 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr,
 O-sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 122
 Gly Xaa Xaa Xaa His Ser Lys Xaa Gln Xaa Cys Leu Arg Xaa Ile Arg
 1 5 10 15

Val Asn Lys Val Gln Gln Xaa Cys
 20

<210> 123
 <211> 439
 <212> DNA
 <213> Conus purpurascens

<400> 123
 gcgatgcaac tgtacacgta tctgtatctg ctggtgcccc tggtgacacctt ccacctaatc 60
 ctaagcacgg gcacactagc tcatggagac acactgactg aacgccgttc gtttgacgcc 120
 acagcactga aacctgagcc tgcctcctg cagaaatccg ctgcccgcag caccgacgac 180
 gatgacaagg acaggttgc tcaagaggaag aggattctca aaaagcaagg aaacaaagcc 240
 agaggcgaag cagaacatta cgcgtttcag gagtgctta gagaaataaa tgtaaataag 300
 gtacaacaag aatgttaatc aagctgggtg ttctacgtga cactcgtag ttctaaagtc 360
 cccagataga tcgttcccta ttttgcac attctttctt tctctttca tttaattccc 420

caaatcttcc atgtttatt 439

<210> 124
 <211> 102
 <212> PRT
 <213> Conus purpurascens

<400> 124
 Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Ser Thr Gly Thr Leu Ala His Gly Asp Thr Leu Thr
 20 25 30

Glu Arg Arg Ser Val Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Asp Asp Lys Asp Arg
 50 55 60

Leu Thr Gln Arg Lys Arg Ile Leu Lys Lys Gln Gly Asn Lys Arg Glu
 65 70 75 80

Ala Glu His Tyr Ala Phe Gln Glu Cys Leu Arg Glu Ile Asn Val Asn
 85 90 95

Lys Val Gln Gln Glu Cys
 100

<210> 125
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa at residues 2, 4, 10, 14 and 23 is Glu or gamma-carboxy-Glu;
 Xaa at residue 6 is Tyr, mono-halo-Tyr, di-halo-Tyr, 125I-Tyr, O-
 sulpho-Tyr, O-phospho-Tyr or nitro-Tyr

<400> 125
 Gly Xaa Ala Xaa His Xaa Ala Phe Gln Xaa Cys Leu Arg Xaa Ile Asn
 1 5 10 15

Val Asn Lys Val Gln Gln Xaa Cys
 20

<210> 126
 <211> 421
 <212> DNA
 <213> Conus purpurascens

<400> 126
 gcgatgcaac tgtacacgta tctgtatctg ctgggtcccc tggtgacctt ccacctaatc 60
 ctaggcacgg gaatgctagc tcatggagac acactgactg aacgcccgttc ggttgacgccc 120
 acagcactga aacctgagcc tgcctcctg cagaaatccg ctgccccgag caccgacgccc 180

aatggcaagg acagggttgc tcagaggaag aggattctca aaaagcgagg aaacatggcc 240
aggggcttag aagaagatat agagtttatt gagacgatcg aagaaattgg aaaaagataa 300
ccaagctggg tttccacgt gacactcgtc gttctaaag tccccagata gatcgttcac 360
tattttgcc acattcttcc ttctctttt catttaattc cccaaatctt tcattgtttat 420
t 421

<210> 127
<211> 96
<212> PRT
<213> *Conus purpurascens*

<400> 127
Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
1 5 10 15

His Leu Ile Leu Gly Thr Gly Met Leu Ala His Gly Asp Thr Leu Thr
 20 25 30

Glu Arg Arg Ser Val Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
35 40 45

Leu Gln Lys Ser Ala Ala Arg Ser Thr Asp Ala Asn Gly Lys Asp Arg
50 55 60

Leu Thr Gln Arg Lys Arg Ile Leu Lys Lys Arg Gly Asn Met Arg Leu
65 70 75 80

Glu Glu Asp Ile Glu Phe Ile Glu Thr Ile Glu Glu Ile Gly Lys Arg
85 90 95

<210> 128
<211> 15
<212> PRT
<213> *Conus purpurascens*

<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa at residues 3, 4, 7, 10, 13 and 14 is Glu or gamma-carboxy-Gl
u

<400> 128
Gly Leu Xaa Xaa Asp Ile Xaa Phe Ile Xaa Thr Ile Xaa Xaa Ile
1 5 10 15

<210> 129
<211> 418
<212> DNA
<213> *Conus stercusmuscarum*

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<400> 129
gcgatgcaac tgtacacgta tctgtatctg ctggtgcccc tggtgacacctt ccacctaats 60
ctgggcacgg gcacactaga tcatggaggc gcactgactg aacgccgttc ggctgacgcc 120
```

acagcgctga aacctgagcc tgcctgcag aaatccgctg ccggcagcac cgacgacaac 180
 ggcaaggaca gttgactca gatgaagagg attctcaaaa agcgaggaaa cacggctaga 240
 atcaccgaaa ctgatataga gcttgttatg aaattagaag aaattggaaa aagataatca 300
 agctgggtgt tccacgtgac actcgtcagt tctgaagtcc cgaggttagat cgttccctat 360
 tttgccaca ttctttctt ctctttcat gtaattcccc aaatcttca tgtttatt 418

<210> 130

<211> 97

<212> PRT

<213> Conus stercusmuscarum

<400> 130

Met Gln Leu Tyr Thr Tyr Leu Tyr Leu Leu Val Pro Leu Val Thr Phe
 1 5 10 15

His Leu Ile Leu Gly Thr Gly Thr Leu Asp His Gly Gly Ala Leu Thr
 20 25 30

Glu Arg Arg Ser Ala Asp Ala Thr Ala Leu Lys Pro Glu Pro Val Leu
 35 40 45

Gln Lys Ser Ala Ala Gly Ser Thr Asp Asp Asn Gly Lys Asp Arg Leu
 50 55 60

Thr Gln Met Lys Arg Ile Leu Lys Lys Arg Gly Asn Thr Ala Arg Ile
 65 70 75 80

Thr Glu Thr Asp Ile Glu Leu Val Met Lys Leu Glu Glu Ile Gly Lys
 85 90 95

Arg

<210> 131

<211> 15

<212> PRT

<213> Conus stercusmuscarum

<220>

<221> PEPTIDE

<222> (1)..(15)

<223> Xaa at residues 3, 7, 13 and 14 is Glu or gamma-carboxy-Glu

<400> 131

Ile Thr Xaa Thr Asp Ile Xaa Leu Val Met Lys Leu Xaa Xaa Ile
 1 5 10 15

<210> 132

<211> 17

<212> PRT

<213> Conus geographus

<220>

<221> PEPTIDE

<222> (1)..(17)

<223> Xaa is Glu or gamma-carboxy-Glu

<400> 132

Gly Glu Xaa Xaa Leu Gln Xaa Asn Gln Xaa Leu Ile Arg Xaa Lys Ser
 1 5 10 15

Asn

<210> 133
 <211> 24
 <212> PRT
 <213> Conus ammiralis

 <220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa is Glu or gamma-carboxy-Glu

 <400> 133

Glx Gly Gln Asp Asp Ser Glu Xaa Xaa Asp Ser Gln Lys Val Met Lys
 1 5 10 15

His Gly Gln Arg Arg Glu Arg Arg
 20

<210> 134
 <211> 17
 <212> PRT
 <213> Conus betulinus

 <220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa is Glu or gamma-carboxy-Glu

 <400> 134

Gly Gly Xaa Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Leu Thr
 1 5 10 15

Pro

<210> 135
 <211> 17
 <212> PRT
 <213> Conus betulinus

 <220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa is Glu or gamma-carboxy-Glu

 <400> 135
 Gly Gly Xaa Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Ile Thr
 1 5 10 15

Pro

<210> 136
 <211> 17
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 136
 Asp Gly Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu Asn Xaa Leu Thr
 1 5 10 15

Pro

<210> 137
 <211> 18
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 137
 Gly Tyr Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Arg Xaa Leu Glu
 1 5 10 15

Glu Ala

<210> 138
 <211> 17
 <212> PRT
 <213> Conus betulinus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 138

Gly Gly Gly Xaa Val Arg Xaa Ser Ala Xaa Thr Leu His Xaa Ile Thr
 1 5 10 15

Pro

<210> 139
 <211> 18
 <212> PRT
 <213> Conus bullatus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 139
 Asn Pro Xaa Thr Tyr Ile Xaa Ile Val Xaa Ile Ser Arg Xaa Leu Glu
 1 5 10 15

Glu Ile

<210> 140

<211> 20

<212> PRT

<213> Conus bullatus

<220>

<221> PEPTIDE

<222> (1)..(20)

<223> Xaa is Glu or gamma-carboxy-Glu

<400> 140

Asn Pro Xaa Thr Tyr Tyr Asn Leu Xaa Leu Val Xaa Ile Ser Arg Glu
1 5 10 15

Leu Glu Glu Ile
20

<210> 141

<211> 19

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa is Glu or gamma-carboxy-Glu

<400> 141

Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Leu
1 5 10 15

Glu Arg Asn

<210> 142

<211> 19

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa is Glu or gamma-carboxy-Glu

<400> 142

Gly Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Leu
1 5 10 15

Glu Arg Asp

<210> 143

<211> 19

<212> PRT

<213> Conus catus

<220>

<221> PEPTIDE

<222> (1)..(19)

<223> Xaa is Glu or gamma-carboxy-Glu

<400> 143

Ser Asp Xaa Xaa Leu Leu Arg Xaa Asp Val Xaa Thr Val Leu Xaa Pro
 1 5 10 15

Glu Arg Asn

<210> 144
 <211> 17
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(17)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 144
 Ile Glu Xaa Gly Leu Ile Xaa Asp Leu Xaa Thr Ala Arg Xaa Arg Asp
 1 5 10 15

Ser

<210> 145
 <211> 15
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(15)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 145
 Ile Glu Xaa Gly Leu Ile Xaa Asp Leu Xaa Arg Xaa Arg Asp Ser
 1 5 10 15

<210> 146
 <211> 29
 <212> PRT
 <213> Conus catus

<220>
 <221> PEPTIDE
 <222> (1)..(29)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 146
 Gly Glu Pro Xaa Val Gly Ser Ile Pro Xaa Ala Val Arg Gln Gln Glu
 1 5 10 15

Cys Ile Arg Asn Asn Asn Arg Pro Trp Cys Pro Lys
 20 25

<210> 147
 <211> 17
 <212> PRT
 <213> Conus distans

<220>
 <221> PEPTIDE
 <222> (1)..(17)

<223> Xaa is Glu or gamma-carboxy-Glu
 <400> 147
 Thr Ile Thr Ala Xaa Xaa Ala Xaa Arg Thr Ser Xaa Arg Met Ser Ser
 1 5 10 15
 Met
 <210> 148
 <211> 19
 <212> PRT
 <213> Conus distans
 <220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa is Glu or gamma-carboxy-Glu
 <400> 148
 Glx Glu Thr Pro Thr Pro Xaa Xaa Val Xaa Arg His Thr Xaa Arg Leu
 1 5 10 15
 Lys Ser Met
 <210> 149
 <211> 15
 <212> PRT
 <213> Conus episcopatus
 <220>
 <221> PEPTIDE
 <222> (1)..(15)
 <223> Xaa is Glu or gamma-carboxy-Glu
 <400> 149
 Gly Gly Lys Asp Ile Val Xaa Thr Ile Thr Xaa Leu Xaa Lys Ile
 1 5 10 15
 <210> 150
 <211> 19
 <212> PRT
 <213> Conus figulinus
 <220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa is Glu or gamma-carboxy-Glu
 <400> 150
 Gly Glu Xaa Xaa Val Ala Xaa Met Ala Ala Xaa Ile Ala Arg Xaa Asn
 1 5 10 15
 Gln Ala Asn
 <210> 151
 <211> 18
 <212> PRT
 <213> Conus figulinus
 <220>

<221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 151
 Ser Tyr Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Lys
 1 5 10 15

Glu Arg

<210> 152
 <211> 34
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(34)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 152
 Ser Tyr Xaa Gln Ala Arg Xaa Val Gln Xaa Ala Val Asn Xaa Leu Lys
 1 5 10 15

Glu Arg Gly Lys Lys Ile Ile Met Leu Gly Val Pro Arg Asp Thr Arg
 20 25 30

Gln Phe

<210> 153
 <211> 18
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 153
 Asp Tyr Xaa Asp Asp Arg Xaa Ile Ala Xaa Thr Val Arg Xaa Leu Glu
 1 5 10 15

Glu Ile

<210> 154
 <211> 19
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 154
 Gly Asn Thr Ala Xaa Xaa Val Arg Xaa Ala Ala Xaa Thr Leu His Glu
 1 5 10 15

Leu Ser Leu

<210> 155
 <211> 23
 <212> PRT
 <213> Conus figulinus

<220>
 <221> PEPTIDE
 <222> (1)..(23)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 155
 Gly Ser Ile Ser Met Gly Phe Xaa His Arg Arg Xaa Ile Ala Xaa Leu
 1 5 10 15

Val Arg Glu Leu Ala Glu Ile
 20

<210> 156
 <211> 19
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 156
 Gly Glu Xaa Xaa Val Ala Lys Met Ala Ala Xaa Ile Ala Arg Xaa Asn
 1 5 10 15

Ala Ala Asn

<210> 157
 <211> 18
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(18)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 157
 Gly Lys Xaa Xaa Asp Arg Xaa Ile Val Xaa Thr Val Arg Xaa Leu Glu
 1 5 10 15

Glu Ile

<210> 158
 <211> 19
 <212> PRT
 <213> Conus lynceus

<220>
 <221> PEPTIDE
 <222> (1)..(19)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 158
 Gly Glu Xaa Xaa Val Ala Lys Met Ala Ala Xaa Leu Thr Arg Xaa Glu
 1 5 10 15

Ala Val Lys

<210> 159
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 159
 Gly Glu Xaa Xaa His Ser Lys Tyr Gln Xaa Cys Leu Arg Xaa Val Arg
 1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
 20

<210> 160
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 160
 Gly Glu Xaa Xaa His Ser Lys Tyr Gln Xaa Cys Leu Arg Xaa Val Arg
 1 5 10 15

Val Asn Asn Val Gln Gln Glu Cys
 20

<210> 161
 <211> 24
 <212> PRT
 <213> Conus purpurascens

<220>
 <221> PEPTIDE
 <222> (1)..(24)
 <223> Xaa is Glu or gamma-carboxy-Glu

<400> 161
 Gly Glu Xaa Xaa His Ser Lys Tyr Gln Xaa Cys Leu Arg Xaa Ile Arg
 1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
 20

<210> 162
 <211> 24
 <212> PRT
 <213> Conus purpurascens

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<220>
<221> PEPTIDE
<222> (1)..(24)
<223> Xaa is Glu or gamma-carboxy-Glu

<400> 162
Gly Glu Ala Xaa His Tyr Ala Phe Gln Xaa Cys Leu Arg Xaa Ile Asn
1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
20

<210> 163
<211> 15
<212> PRT
<213> Conus purpurascens

<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa is Glu or gamma-carboxy-Glu

<400> 163
Gly Leu Xaa Xaa Asp Ile Xaa Phe Ile Xaa Thr Ile Xaa Glu Ile
1 5 10 15

<210> 164
<211> 15
<212> PRT
<213> Conus stercusmuscarum

<220>
<221> PEPTIDE
<222> (1)..(15)
<223> Xaa is Glu or gamma-carboxy-Glu

<400> 164
Ile Thr Xaa Thr Asp Ile Xaa Leu Val Met Lys Leu Xaa Glu Ile
1 5 10 15

<210> 165
<211> 24
<212> PRT
<213> Conus ammiralis

<400> 165
Glx Gly Gln Asp Asp Ser Glu Glu Asp Ser Gln Lys Val Met Lys
1 5 10 15

His Gly Gln Arg Arg Glu Arg Arg
20

<210> 166
<211> 17
<212> PRT
<213> Conus betulinus

<400> 166
Gly Gly Glu Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Leu Thr

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1 5 10 15

Pro

<210> 167
<211> 17
<212> PRT
<213> *Conus betulinus*

<400> 167
Gly Gly Glu Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Ile Thr
1 5 10 15

Pro

<210> 168
<211> 17
<212> PRT
<213> *Conus betulinus*

<400> 168
Asp Gly Glu Glu Val Arg Glu Ala Ala Glu Thr Leu Asn Glu Leu Thr
1 5 10 15

Pro

<210> 169
<211> 18
<212> PRT
<213> *Conus betulinus*

<400> 169
Gly Tyr Glu Asp Asp Arg Glu Ile Ala Glu Thr Val Arg Glu Leu Glu
1 5 10 15

Glu Ala

<210> 170
<211> 17
<212> PRT
<213> *Conus betulinus*

<400> 170
Gly Gly Glu Val Arg Glu Ser Ala Glu Thr Leu His Glu Ile Thr
1 5 10 15

Pro

<210> 171
<211> 18
<212> PRT
<213> *Conus bullatus*

<400> 171
Asn Pro Glu Thr Tyr Ile Glu Ile Val Glu Ile Ser Arg Glu Leu Glu
1 5 10 15

Glu Ile

<210> 172

<211> 20
 <212> PRT
 <213> Conus bullatus

<400> 172
 Asn Pro Glu Thr Tyr Tyr Asn Leu Glu Leu Val Glu Ile Ser Arg Glu
 1 5 10 15
 Leu Glu Glu Ile
 20

<210> 173
 <211> 19
 <212> PRT
 <213> Conus catus

<400> 173
 Ser Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Leu Glu Leu
 1 5 10 15

Glu Arg Asn

<210> 174
 <211> 19
 <212> PRT
 <213> Conus catus

<400> 174
 Gly Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Leu Glu Leu
 1 5 10 15

Glu Arg Asp

<210> 175
 <211> 19
 <212> PRT
 <213> Conus catus

<400> 175
 Ser Asp Glu Glu Leu Leu Arg Glu Asp Val Glu Thr Val Leu Glu Pro
 1 5 10 15

Glu Arg Asn

<210> 176
 <211> 17
 <212> PRT
 <213> Conus catus

<400> 176
 Ile Glu Glu Gly Leu Ile Glu Asp Leu Glu Thr Ala Arg Glu Arg Asp
 1 5 10 15

Ser

<210> 177
 <211> 17
 <212> PRT
 <213> Conus catus

<400> 177
 Ile Glu Glu Gly Leu Ile Glu Asp Leu Glu Ala Ala Arg Glu Arg Asp
 1 5 10 15

Ser

<210> 178
 <211> 29
 <212> PRT
 <213> *Conus catus*

<400> 178
 Gly Glu Pro Glu Val Gly Ser Ile Pro Glu Ala Val Arg Gln Gln Glu
 1 5 10 15

Cys Ile Arg Asn Asn Asn Arg Pro Trp Cys Pro Lys
 20 25

<210> 179
 <211> 15
 <212> PRT
 <213> *Conus distans*

<400> 179
 Thr Ile Thr Ala Glu Glu Ala Glu Arg Thr Ser Met Ser Ser Met
 1 5 10 15

<210> 180
 <211> 19
 <212> PRT
 <213> *Conus distans*

<400> 180
 Glx Glu Thr Pro Thr Pro Glu Glu Val Glu Arg His Thr Glu Arg Leu
 1 5 10 15

Lys Ser Met

<210> 181
 <211> 15
 <212> PRT
 <213> *Conus episcopatus*

<400> 181
 Gly Gly Lys Asp Ile Val Glu Thr Ile Thr Glu Leu Glu Lys Ile
 1 5 10 15

<210> 182
 <211> 19
 <212> PRT
 <213> *Conus figulinus*

<400> 182
 Gly Glu Glu Glu Val Ala Glu Met Ala Ala Glu Ile Ala Arg Glu Asn
 1 5 10 15

Gln Ala Asn

<210> 183
 <211> 18

<212> PRT
 <213> Conus figulinus

<400> 183
 Ser Tyr Glu Gln Ala Arg Glu Val Gln Glu Ala Val Asn Glu Leu Lys
 1 5 10 15

Glu Arg

<210> 184
 <211> 34
 <212> PRT
 <213> Conus figulinus

<400> 184
 Ser Tyr Glu Gln Ala Arg Glu Val Gln Glu Ala Val Asn Glu Leu Lys
 1 5 10 15

Glu Arg Gly Lys Lys Ile Ile Met Leu Gly Val Pro Arg Asp Thr Arg
 20 25 30

Gln Phe

<210> 185
 <211> 18
 <212> PRT
 <213> Conus figulinus

<400> 185
 Asp Tyr Glu Asp Asp Arg Glu Ile Ala Glu Thr Val Arg Glu Leu Glu
 1 5 10 15

Glu Ile

<210> 186
 <211> 19
 <212> PRT
 <213> Conus figulinus

<400> 186
 Gly Asn Thr Ala Glu Glu Val Arg Glu Ala Ala Glu Thr Leu His Glu
 1 5 10 15

Leu Ser Leu

<210> 187
 <211> 23
 <212> PRT
 <213> Conus figulinus

<400> 187
 Gly Ser Ile Ser Met Gly Phe Glu His Arg Arg Glu Ile Ala Glu Leu
 1 5 10 15

Val Arg Glu Leu Ala Glu Ile
 20

<210> 188
 <211> 19
 <212> PRT

<213> Conus lynceus

<400> 188

Gly Glu Glu Glu Val Ala Lys Met Ala Ala Glu Ile Ala Arg Glu Asn
1 5 10 15

Ala Ala Asn

<210> 189

<211> 18

<212> PRT

<213> Conus lynceus

<400> 189

Gly Lys Glu Glu Asp Arg Glu Ile Val Glu Thr Val Arg Glu Leu Glu
1 5 10 15

Glu Ile

<210> 190

<211> 19

<212> PRT

<213> Conus lynceus

<400> 190

Gly Glu Glu Glu Val Ala Lys Met Ala Ala Glu Leu Thr Arg Glu Glu
1 5 10 15

Ala Val Lys

<210> 191

<211> 24

<212> PRT

<213> Conus purpurascens

<400> 191

Gly Glu Glu Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Val Arg
1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
20

<210> 192

<211> 24

<212> PRT

<213> Conus purpurascens

<400> 192

Gly Glu Glu Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Val Arg
1 5 10 15

Val Asn Asn Val Gln Gln Glu Cys
20

<210> 193

<211> 24

<212> PRT

<213> Conus purpurascens

<400> 193

Gly Glu Glu Glu His Ser Lys Tyr Gln Glu Cys Leu Arg Glu Ile Arg
1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
20

<210> 194
<211> 24
<212> PRT
<213> *Conus purpurascens*

<400> 194
Gly Glu Ala Glu His Tyr Ala Phe Gln Glu Cys Leu Arg Glu Ile Asn
1 5 10 15

Val Asn Lys Val Gln Gln Glu Cys
20

<210> 195
<211> 15
<212> PRT
<213> *Conus purpurascens*

<400> 195
Gly Leu Glu Glu Asp Ile Glu Phe Ile Glu Thr Ile Glu Glu Ile
1 5 10 15

<210> 196
<211> 15
<212> PRT
<213> *Conus stercusmuscarum*

<400> 196
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